EXPLORING LINKAGES BETWEEN GREEN HRM PRACTICES AND SUSTAINABILITY: EVIDENCE FROM INDIAN RED CATEGORY INDUSTRY

A

SYNOPSIS

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1.0 INTRODUCTION

Across the globe, we are moving towards industrialization which increases organization production and other activities. This has resulted in improved standard of living on one hand while on the other it has increased the ecological hazards, thereby posing a threat to human being (Duggal & Jain, 2020).

Business is reliant on natural resources, but it also has a negative impact on them. The evolution of the link between industry and the environment, from raw material extraction through resource management and waste generation, has long been overlooked. As a result, when we exploit natural resources without limits in business, we end up with disastrous consequences such as global warming, floods, famines, tsunamis, and earthquakes, etc.

Businesses are under greater competitive, regulatory, and societal challenges in today's global business climate. Furthermore, there is also pressure for environmental sustainability, which requires strategies to be put in place to reduce the environmental impacts caused by the products and services offered (Lather & Vikas, 2014). Businesses are facing of tremendous employee pressure. Government has imposed stringent environmental regulation, which has in turn necessitated environmental conscious practices (Aykan, 2017). Under green human resource management, environmentally sensitive initiatives give businesses a competitive advantage (Aykan, 2017). Green human resource management (GHRM) methods are a greening way to achieve environmental sustainability in industrial operations, as well as impose a critical role in reducing carbon footprints and pollution from all activities. Business firms have employed a strategic tool for business firms known as green human resources management. It has become a pro-active implementation and has generated a competitive advantage (Aykan, 2017).

1.1 GREEN HUMAN RESOURCE MANAGEMENT

Wehrmeyer coined the phrase "green HRM" in 1996 (Tomer, 2020). It is part of a larger corporate social responsibility framework that also involves the implementation of ecologically appropriate initiatives and policies for promoting utilization of natural assets in a sustainable way and supporting ecology (Tomer, 2020)

Green human resource management strives to train employees to take on environmental obligations at work, changing them into team players who can engage in healthy relationships with coworkers, present fresh ideas and recommendations, and therefore make environmental initiatives easier to implement. The main purpose is to encourage employees to be more environmentally sensitive and to improve the company's environmental performance (Aykan, 2017)

Green HRM entails implementing environmentally friendly HR programmed that increase productivity, lower costs, and improve employee engagement and retention, all of which contribute to companies reducing employee carbon footprints through electronic filing, carpooling, work-sharing, videoconferencing, and virtual interviews, composting, telecommuting, virtual recruiting and training, and energy efficiency, among other things. (Arora, 2020).

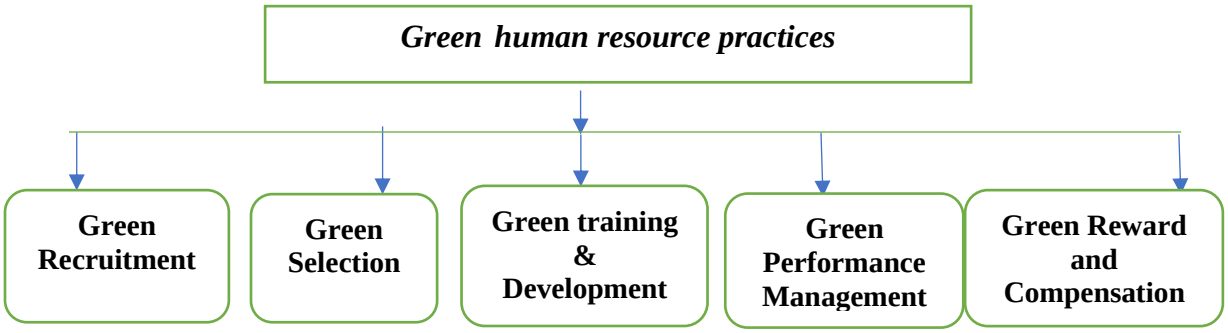

FIGURE 1- GHRM PRACTICES

1.2 SUSTAINABILITY IN HRM

According to the Brundtland Commission's report, sustainability implies "filling current requirements without undermining future generations' ability to meet their needs".

Business and Sustainable Development: "Sustainability for a business enterprise means adopting business strategies and activities that meet the needs of the enterprise and stakeholders today, while protecting, sustaining, and enhancing the human and natural resources that will be required in the future," according to A Global Guide 1992 Fadi Kotob,2011.

1.2.1 The rationalities of sustainability for HRM: There are three major reasons for HRM sustainability which provide an explanation for why industries commit to sustainability: normative, efficiency- oriented,

substance- oriented (Ehnert, Sustainability and human resource management:reasoning and application on corporate, 2009).

- **Normative – rationality**- is built on the concept of treating employees socially, fostering employee well-being, and reducing the impact of work on them (Ehnert, Sustainability and Human Resource Management: a Model and Suggestions for Future Research, 2011).
- **Efficiency- oriented rationality** - is built on duality in order to reduce the impact on human resources and to reduce human resource usage through innovation (Ehnert, Sustainability and Human Resource Management: a Model and Suggestions for Future Research, 2011).
- **Substance- oriented rationality** - is based on the concept of preserving the resource base while accounting for the consequences of decision-making. In the context of HRM, there are two strategies to balance human resource consumption and reproduction: supporting human resource regeneration and investing in the sources of these resources, such as universities and education systems (Ehnert, Sustainability and Human Resource Management: a Model and Suggestions for Future Research, 2011).

HRM has been recognized as a vital component in the development of the competencies and organizational capabilities needed to support an organization's journey to sustainability. HRM systems that generate and support the long-term economic, physical, and social well-being of an organization's workforce are instances of sustainability (Taylor & Osland, 2012). Green HRM, on the other hand, is claimed by (Yusliza, Ramayah, & Othman, 2015)to support the paradigmatic.

Understanding of the "triple bottom line," which means that green HRM involves HR practices that are aligned with the three pillars of sustainability namely - economic, environmental, and social balance.

1.3 INDIAN RED CATEGORY INDUSTRY

According to (central pollution control board, n.d.) Red Category industries refer to those industries which have pollution index greater than 60. Industries falling under ‘Red Category’ are not permitted in

ecologically fragile or sensitive areas. Industries like paper, cement, automobile manufacturing and petrochemical are included in this category.

1.3.1 Purpose of Categorization- to ensure that the industry is formed in a way that is compatible with environmental goals. The new standards encourage industrial sectors to embrace cleaner technologies, resulting in less pollutants being produced. The new categorization system also makes it easier for industries to self-assess because the subjectivity of previous assessments has been removed. This categorization is a part of the current government's efforts, policies, and goals to create a clean and transparent working environment and boost Ease of Doing Business in the country.

1.3.2 Pollution Index

Pollution index (PI) measures the level of 'emissions' that cause air pollution, 'effluents' that contaminate water, 'hazardous wastes', which includes dangerous chemicals and 'consumption of resources' which excessively use natural resources. A pollution index score is assigned on the basis of pollution levels. A higher level of pollution will reflect a higher score. The index is derived after extensive consultation with various pollution control and monitoring bodies such as CPCB, SPCB, in consultation with Ministry of Environment, Forest and Climate Change (MoEFCC).

2.0 Review of Literature

The review of literature of proposed research is performed to understand the basic concept and understanding of Green HRM practices in Indian Red Category Industry.

2.1 Classification of Literature Review: A broad classification of the previous papers is given as follows:

1. Focus of the paper

- Green human resource practices
- Employee Green behavior
- Environmental sustainability in organization
- Environmental sustainability in society

2. Context of the paper

- Indian
- Foreign

3. Type of Data for analysis
   - Qualitative
   - Quantitative
4. Research Design
   - Exploratory
   - Descriptive
   - Analytical

Summary of Literature Review														
Title ***Author(s) (Year)***	**Category**	**Literature Reviewed**	**Focus Issue**				**Context**		**Data Type**		**Methodology**			
			Green HRM practices	**Employee Green behavior**	**Environmental sustainability in organization**	**Environmental sustainability in society**	**Indian**	**Foreign**	**Qualitative**	**Quantitative**	**Exploratory**	**Descriptive**	**Analytical**
Perceived green human resource management practices and corporate sustainability: multigroup analysis and major industries perspectives (2021)	Research article		✓		✓			✓		✓	✓		✓
Influences of Green Human Resources Management on Environmental Performance in Small Lodging Enterprises: The Role of Green Innovation. Abu Elnasr Sobaih Ahmed Hasanein and Ibrahim Elshaer (2020)	Research article		✓		✓			✓		✓	✓		✓
Nexus between green HRM and green management towards fostering green values. Mahmoud Radwan Hussein AlZgoola (2019)	research article		✓	✓				✓		✓			✓
Green HRM in pursuit of sustainable competitive Advantage.Hristova, Snezhana; Stevceska-Srbinovska, Dusica (2020	Conference paper	✓	✓		✓			✓	✓				
Sustainable HRM and Green HRM: The Role of Green HRM in Influencing Employee Pro environmental Behavior at Work Nailya Saifulina, Adolfo Carballo-Penela, Emilio Ruzo-Sanmartín (2020)	Research Article	✓	✓	✓	✓			✓	✓		✓	✓	
Corporate social responsibility, green human resources management and sustainable performance: is organizational citizenship behavior towards environment the missing link.	Research article	✓	✓	✓	✓			✓		✓	✓		
Green HRM and green innovation: can green transformational leadership moderate: case of pharmaceutical firms in Australia. Umair ahmeda, soleman mozammeb, fazhiz zaman (2020)	Research article		✓	✓				✓		✓	✓		✓

Green human resource management and environmental cooperation: an ability motivation – opportunity and contingency perspective. wantao yu Roberto Chavez mengying fen (2019)	Research article	✓	✓					✓	✓		✓		
The relationship between green human resource management and environmental sustainability: a case of state commercial bank in matale district.R.M rushya & D.M.T.D dissanayake (2020)	Research article	✓	✓		✓			✓	✓		✓	✓	
Green human resource management and the enablers of green organizational culture: enhancing a firm's environmental performance for sustainable development.Samuel roscoe nachiappan Subramanian charbel j.c jabbour tao chong (2018)	Research article		✓		✓			✓		✓	✓		✓
The study of green human resource management and its effect on emoloyees health in automobile sector.Ms. Anuradha Dr.A. K srivastava (2018)	Research article			✓	✓		✓		✓		✓	✓	
A study on green HRM practices and their effective implementation in the Indian industry. Janardhan D. mandhare, Dr. D.Y. patil vidayapeeth (2020)	Conferen -ce paper				✓		✓		✓		✓	✓	✓
Can green human resource management attract young talent? An empirical analysis, Richa Chaudhary (2018).	Research article		✓		✓		✓			✓	✓		✓
Green HRM – a way to greening the environment, Gulbash Duggal Dr. lalit kumar jain (2020).	Journal article	✓	✓				✓		✓		✓	✓	
Green HRM: In India, Manju katarya ankit kumar (2019).	Journal article	✓	✓		✓		✓		✓		✓		
Key issues of green human resource management practices- a literature review, Dr. Mamatha S.M Mr. bharmappa (2020).	Journal article	✓	✓				✓		✓		✓		
Green HRM- strategies for greening people, Shobhanjali raghuwanshi, Dr. sopnamayee acharya (2020).	Journal article		✓	✓	✓		✓		✓		✓		
Green HRM – People management commitment to environmental sustainability, Koshish jyoti (2019)	Research article	✓	✓	✓	✓		✓		✓		✓		
Green HRM: A study on the new era global management practices, Madhurima basu (2019)	Research article	✓	✓		✓		✓		✓		✓	✓	

Effect of employees perceived green HRM on their workplace green behaviors in oil and mining industries: based on cognitive – affective system theory Siu Chen, wanxing jiang, Xin li and han Gao (2021)	Research article		✓	✓	✓			✓		✓	✓	✓	
Green practice and firm sustainability strategy – an analysis of recent literature in petrochemical industry. Yuary farradia, hendro sasongko and abdul talib bon (2019)	Journal article		✓		✓			✓	✓		✓	✓	
How do green HRM practices affect employees' green behaviors? the role of employee engagement and personality attributes, Omar Mohammed ali ababneh (2021)	Journal article		✓	✓	✓			✓		✓	✓	✓	✓
Effect of green HRM practices on employee workplace green behavior: the role of psychological green climate and employee green values, Jenny Dumont, jie shen, and Xin deng(2016).	Research article		✓	✓	✓			✓	✓		✓	✓	
Green HRM – engaging human resource in reducing carbon footprint and enchaning environment sustainability: a case study-based approach, Prachi Kapil (2015).	Journal article		✓		✓		✓		✓		✓	✓	
Green human resource management research in emergence: a review and future directions.Shuang ren, guiyao tang & susan E. Jackson (2017).	Research article	✓	✓		✓			✓	✓		✓	✓	
Green HRM practices of heavy commercial vehicles companies towards enhancing environmental sustainability Mr. amith prahalada, mr. anand m (2019).	Journal article		✓		✓		✓		✓				
Green human resource management in hotels: awareness and implementation.	Journal article		✓	✓	✓			✓		✓	✓	✓	✓
Why human resource management should go green in hotels: internal benefits perspective.	Conference paper		✓		✓			✓	✓		✓		
Pathway towards sustainability in manufacturing organizations: empirical evidence on the role of green human resource management. Jing Yi Yong, thurasamy ramayah 2019.	Research article	✓	✓		✓			✓		✓	✓		✓
Leveraging green human resource practices to achieve environmental sustainability. Pascal paille, Patrick Valeau, Douglas w. Renwick 2020	Journal article	✓	✓		✓			✓		✓	✓		✓

2.2 **There are a number of Studies related to Green Human Resource Practices**: In this regard a study related to effective implementation of GHRM practices in Indian industry is stated by (Patil & Farooqui, 2020)**.** The study discusses how these activities have helped the Indian organizations in hiring talented human resources, induction of employees. It has also aided businesses in improving employee conduct and fostering a good attitude. Green HRM practices have also resulted in improved corporate image, company brand and safeguarding of all natural resources like pure air, e-waste material recycling and producing most economical items. Another paper related to Green HRM strategy (Raghuwanshi A. , 2020) **t**ried to explore the concepts, processes and practices essential for green HRM. The key challenge for HR professionals is the application of GHRM practices in real life and convert organization into green bodies; leading to better environmental performance of organization. Gradually organizations shifted towards the environment sustainability. Further it is evident that the HR professionals have a role in the pursuit of greener business practices and enforce greener working practices and environmentally friendly behavior. Adding to this concept (Duggal & Jain, 2020) shows how to go green by focusing on several green human resource strategies. They suggests some social implications of green human resource practices in this regard. Green HRM practices will attract people to a company, and their implementation will improve employee attitudes and behaviors, as well as employee performance and retention, thereby reducing employee carbon footprints by using GHRM. Another study on the new era of global management practices was conducted by (Basu, 2019). This study tried to assess the impact of green HRM management on organizations According to the study, Green HRM is being adopted by organizations globally, as a proactive move toward environmental protection. It will benefit the industrial sector on a larger scale and will protect the natural ecosystem. As a result, harmful effects of industrialization will be mitigated. It is a pioneering path toward achieving one of the fundamental paradigms of sustainable management practices, implying that Green HRM practices restructure age-old management practices and aid in making concerted efforts for the preservation of ecosystems and future generations**.** Yet another study on GHRM in India (Katarya & Kumar, 2019) suggests that corporate success of any organization is judged by not only its profit percentage but also by creation of green environment, employee loyalty etc. Green HRM assists the organization in making the

most efficient use of its resources. In this study, they observed that how Green HRM helps the employees and their organization practices against environmental issues and increase efficiency and better uses of natural resources. Another study came up with the idea of integrating natural resource management with green HRM by (Jyoti, 2019). It is the application of human resource management techniques to promote the efficient use of internal resources and the cause of environmental sustainability. Furthermore, she examined the extent to which the firm has adopted HR practices in her study people management commitment to environmental sustainability.

Green human resource management practices were studied in automobile sector by (Anuradha & Srivastava, 2018) and have focused on how Green Human Resource Management practices have been implemented by the different organizations and their impact on the employee health and the employee commitment in automobile industry. Another aspect – corporate sustainability and GHRM was **s**tudied and it focuses on corporate sustainability practices by (Jamal, 2021). This study focused on the positive impact of three GHRM practices and corporate sustainability namely- green recruitment and selection, green pay and rewards, green involvement. However, there is no link between green training and business sustainability. Yet another study by (Saifulina, Carballo-Penela, & Ruzo-Sanmartín, 2020) talks about a framework for understanding the complicated dynamics that will promote voluntary pro-environmental behavior at work by combining GHRM policy, organizational, and individual aspects into one model. Another perspective was explored by (Arora, 2020) in which she investigated some strategies in today's Indian firms which focus on green HRM practices as a competitive advantage. These businesses have gained due to the adoption of green HRM activities. This study concludes that green HRM is poised to play a significant role in the industry. It can be done by incorporating it into management theory, human resource policies, and strategies. Employee education and the implementation of environmental laws also raises worker and community awareness about more efficient use of natural resources.

2.3 **There are a number of Studies related to Employee Green Behavior**. In this regard a study related to effect of Green HRM practices on employee workplace green behavior is done by (Shen, Dumont, & Xin, 2016) **.**The purpose of this study was to look into the link between green HRM and employee green behavior

in the workplace. Green HRM influenced the role green behavior both directly and indirectly, but according to his findings green HRM only indirectly influenced extra role green behavior via psychological green climate mediation. Another study provides a fresh way to sustainability by empirically examining the impact of employee participation with environmental initiatives in mediating the relationship between green HRM practices and individual green behavior by (Ababneh, 2021). The significance of particular personality factors in moderating the correlation between HRM practices and employee engagement with environmental efforts was also investigated in this study. The study used the traditional idea of person – organization – fit. Adding to this another study done to investigate how employee green behavior can be inculcated into employees' mindsets and under what conditions this can best be accomplished by (Saleem & Qadeer, 2021) . In his study they examined the mediation processes of green psychological climate, employee's harmonious environmental passion, and employee's environmental commitment to analyze the relationship between ethical leadership and EGB.

2.4 **Studies related sustainability**: In this regard a study related to Green HRM engaging Human Resource in reducing carbon footprints and enhancing sustainability is stated by (Kapil & Prachi, 2015)**.** It states that the basic idea behind emergence of green HRM is to integrate human resources with environmental sustainability for the optimum utilization of resources. In this they have made an effort to study environmental sustainability practices adopted by three top car manufacturers of India and has seen its impact in building an all-encompassing mindset for creating an ethnicity of sustainability. Another study was done by (Batista, 2018). In this study she studies the comprehensive picture of the system by analyzing and evaluating the major sustainability categories, as well as examining recognized sustainable practices carried out by significant organizations. (Amrutha & Geetha, 2019) In this study they conceptually analyzed a theoretical model which indicate the mediational role of employee green behavior at workplace in the relationship between green HRM practices and social sustainability of organization by using grounded theory approach. As a result, with a focus on social equality, health, wellness, and well-being, this work investigates the state-of-the-art in green human resource management

research to uncover the immense potential of basic green practices for social sustainability that has yet to be discovered.

2.5 RESEARCH GAP

India has seen rapid Industrialization in the past few decades; due to its expansion in market such as pharmaceuticals, bio-engineering, nuclear technology, informatics and technology- oriented higher education. Technology improves the quality of life and sophisticated products facilitate human life. Dependence on technology has resulted in the depletion of natural resources, soil contamination, global warming, air pollution, water pollution and deterioration of six sigma qualities such as: Innovation, Water Quality, Air Quality, Education and Healthcare, Agriculture and Dairy Practices and Human values.

While reviewing the literature it was observed that not a single study was found related to GHRM with reference to Red Category Industry of India. It was observed that both Indian and Foreign studies were related to specific sector but none of them studied cross- sectional study of Red Category Industry. The present study aims to fill this gap.

Following factors are extracted from review of literature on which further research will be conducted:

- **Green Human Resource Management Practices** such as green recruitment, green selection, green training and development, green performance management, green rewards etc.
- **Employee Green Behavior**
- **Organization Sustainability**
- **Social Sustainability**
- **Environmental Sustainability**

3.0 NEED OF THE STUDY

In recent years, there has been a widespread agreement on the necessity for a practical environmental management plan and tools to ensure environmental sustainability. Various initiatives have been taken to reduce the negative impact of industrial waste and its carbon footprint. According to review of the literature, green human resource management strategies are a very successful instrument for maintaining industrial sustainability. A number of studies have been done but Red Category perspective of Indian industry is

missing. As a result, the study focuses on red-category firms, as well as it observes the linkages between green HRM practices and sustainability in these industries via EGB- (mediating variable). The aim of the research is to explore linkages between green HRM practices and long-term sustainability in the red category business, and to make recommendations for reducing carbon footprints, thereby making the industry more sustainable in environmental, social, and organizational context.

4.0 OBJECTIVES

- To understand the Green human resource management practices adopted by the Indian Red Category Industry.
- To study the relationship between Green human resource management practices and sustainability of Indian Red Category Industry.
- To study the linkage between Green human resource management practices and EGB of Indian Red Category Industry.
- To study the linkages between EGB and sustainability of Indian Red Category Industry
- To study the importance and implication of employee green behavior (EGB) as a mediating variable between Green human resource management practices and organizational, social and environmental sustainability.

5.0 CONCEPTUAL FRAMEWORK AND HYPOTHESES

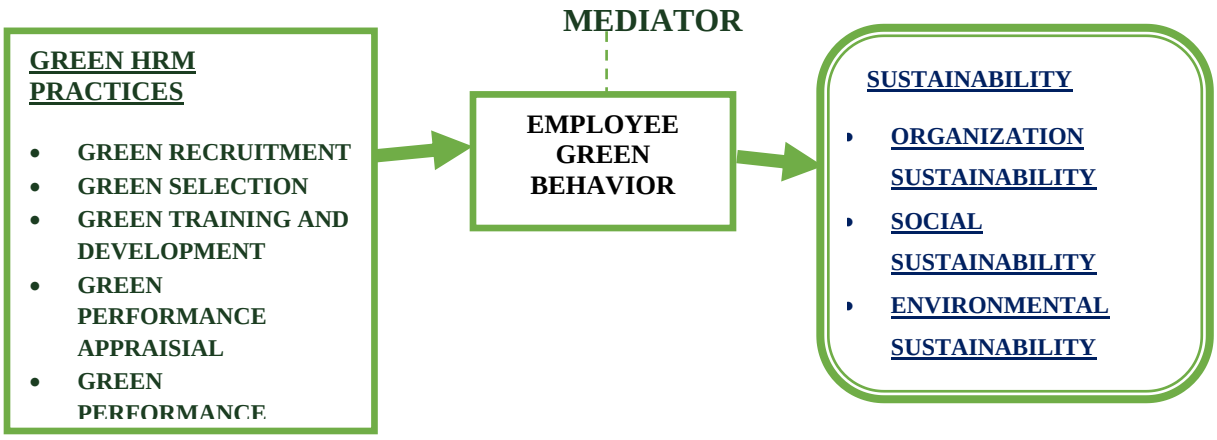

FIGURE 2: CONCEPTUAL FRAMEWORK (Source: Self construct)

INDEPENDENT VARIABLES:

- **Green Recruitment –** refers to a paper-free recruitment process with a reduced negative impact on the environment (Olanrewaju & Olawoyin, 2021).
- **Green Selection-** refers to the process of hiring candidates who have personality traits such as **green** consciousness, conscientiousness, and agreeableness (Olanrewaju & Olawoyin, 2021)
- **Green Training and Development-** is described as the process of providing employees with working methods that assures adequate resource utilization, waste reduction, energy conservation, and reduction of environmental degradation. (Olanrewaju & Olawoyin, 2021)
- **Green Performance Appraisal-** green performance appraisal links the environmental concerns of the organizations for regular review of an employee's job performance and contribution throughout the year in support of accomplishing the objectives of the organization (Raghuwanshi A. , 2020)
- **Green Performance management -** It links the environmental concerns of the organizations (the issues related to the "**green** wave", the integrated management performance) with the general organizational process by which employees are enhancing their professional skills aiming to achieve the organizational values, goals and objectives in an optimum manner (Popescu, 2020)
- **Green Rewards –** refers to reward and compensation packages utilized to influence employees' green practices (Olanrewaju & Olawoyin, 2021). Non-monetary rewards and recognition for employees' environmental achievements includes sabbaticals, special leave, and gifts to employees and their families (Raghuwanshi A. , 2020).

MEDIATING VARIABLE:

- **Employee Green Behavior** - Employees' green behavior refers to a set of actions taken by employees with the goal of reducing the negative impact on the environment. And contributing to environmental sustainability. Employees' green behavior directly affects the effectiveness of the environmental protection of organizations, and is key to ensuring the organization's long-term sustainability (Jian & Nan, 2019)

DEPENDENT VARIABLES:

- **Organizational sustainability-** is defined as organization having appropriate leadership, endowment, global insights, and changed strategies to meet the unique problems that organizations face today (Rahman).
- **Social sustainability-** According to Alberta university social sustainability refers to "universal human rights and basic necessities which are within everyone's reach if they have adequate resources to maintain their families and communities safe and healthy. Just leaders guarantee that personal, labor, and cultural rights are maintained, and that all individuals are safeguarded from discrimination in healthy communities".
- **Environmental sustainability-** According to Alberta university environment sustainability refers to "consumption of natural resources by human beings at a rate that allows them to replenish themselves; thereby maintaining ecological integrity and keeping all of the earth's environmental systems in balance.

5.1 HYPOTHESES

H_1 Green Human Resource Management practices have a positive relationship with Sustainability of Indian Red Category Industry.

H_2Green Human Resource Management practices have a positive relationship with Employee Green Behavior of Indian Red Category Industry.

H_3 Employee Green Behavior (EGB) has a positive relationship with sustainability of Indian Red Category Industry.

6.0 RESEARCH METHODOLOGY

6.1 Nature of the study – As this study requires in depth knowledge and analysis of data, the research would be descriptive and exploratory in nature. The entire assessment will be to analyze the Indian industries under the selected red category industry based on both primary and secondary data. The linkages will be measured through focused observation.

6.2 Scope of the study: Pan India; Indian Red Category Industry, as specified by MoEFCC.

6.3 Sampling Technique: Multistage sampling technique is used for selecting companies and respondents.

6.4 **Sampling frame:** The sampling frame of the proposed research is limited to four sectors of the Indian red category industry, which are selected on the basis of the pollution index (Vikas & Ankit, 2016). They are as follow:

Stage 1

Table 2- Selected Red Category Industry

Selected Red Category Industry	Pollution Index
Petrochemical Industry	**95**
Healthcare Establishment Industry	**75**
Big hotels Industry	**75**
Automobile Industry	**60**

Source- Revised classification of Industrial Sectors under Red, Orange, Green and White Categories as per the CPCB (2016).

Stage 2

Using median split method and the following criteria thirty-one firms have been identified from the above sector-

- Market Capitalization
- No. of Employees
- Carbon Footprints As per their sustainability reports
- Data Availability

Total no. of firms = **31 (across four sector)**

Stage 3

6.5 Sample size calculation:

For respondent: statistical approach to calculate sample size (n) of the infinite population (more than 10, 00,000) will be used. When the population estimate is unknown, a precision rate and confidence level technique is used to arrive at a representative number of respondents. (Godden, 2004). Population, related quantitative measures considered are as follows:

a) Degree of the variability of population characteristics or standard deviation (σ)

b) Level of confidence desired or Z value

c) Degree of precision desired in estimating population characteristics (D)

1. $n = \sigma 2 Z 2 /D2$

2. ―Assuming relative homogeneity of population‖ Bill Godden Formula
3. σ = The Approximate value of the standard deviation of the sample is taken as 1.
4. Z = Standard normal variation or Z value is taken as 1.96 for 95% confidence level desired D is taken as 0.1 to ensure a high degree of precision.
5. n=12 (1.96)2 / (0.1)2 = 384
6. **Sample Size = 384**

Stage 4

Using method of proportion, respondents will be identified in each sector:

(No. of firms identified in sector/ Total no. of firms i.e., 31) * 384

6.6 Data collection- In the study, the reliability and validity are based on the methodical way of data collection and analysis. In the present research, the primary and secondary data will be used.

6.6.1 **Primary data-** The primary data will be collected from the employees of Indian red category industries. The data will be collected with the help of well – structured questionnaire and interviews. The questionnaire will be prepared to know the related information about Indian red category industries, the linkages between green human resource management practices and sustainability in Indian red category industries. The questionnaire method will help in several purposes, like measurement, description and drawing inferences from the results.

6.6.2 **Secondary data –** the secondary data will be collected from reliable secondary sources such as company's website, ministry of environment forest and climate change, various periodicals, articles, journals etc.

6.7 Statistical Tools and Techniques Applied

For the analysis and findings following statistical tools will be used.

- Karl Pearson Coefficient of Correlation
- Regression Analysis
- Percentage, Mean, Standard Deviation, will be used to rank Green HRM practices divers and barriers.
- Sustainability index

7.0 PROPOSED CHAPTERIZATION

The thesis will contain the following chapters:

CHAPTER 1 – Introduction

CHAPTER 2 – Review of Literature

CHAPTER 3 – Conceptual Framework

CHAPTER 4 – Research Methodology

CHAER 5 –Data Analysis

CHAPTER 6 – Result and Interpretation

CHAPTER 7- Conclusion, Limitations and Directions for Future Research

- References and Bibliography
- Appendix

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